

SURGERY

UNDER THE CHARGE OF

J. WILLIAM WHITE, M.D.,

FORMERLY JOHN RHEA BARTON PROFESSOR OF SURGERY IN THE UNIVERSITY OF
PENNSYLVANIA AND SURGEON TO THE UNIVERSITY HOSPITAL

AND

T. TURNER THOMAS, M.D.,

ASSOCIATE PROFESSOR OF APPLIED ANATOMY AND ASSOCIATE IN SURGERY IN THE
UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL
HOSPITAL AND ASSISTANT SURGEON TO THE UNIVERSITY HOSPITAL.

Free Transplantation.—LEXER (*Annals of Surgery*, 1914, ix, 166) discusses the free transplantation of the various tissues of the body. He emphasizes, particularly, the knowledge and practical use of skin transplantation and, more particularly, of bone. The technique of skin and epidermis transplantation is well known, and various methods are employed. Granulation tissue is better razed with a knife than with a spoon. He always freshens the base. To secure hemostasis, he ligates all visible bleeding vessels and then allows the surface to remain uncovered until there is a visible fibrin formation. He then exerts pressure over the surface with a gauze sponge moistened with warm saline solution. This stops all bleeding. Substitution of epidermis for mucous membrane is not practicable, since infection and secretion interfere with the healing process. Where epidermis is contra-indicated on account of previous cicatrization with shrinkage of the skin, transplantation of skin finds its usefulness. According to Hirschfeld, healing takes place as well with as without the subcutaneous adipose flap. For successful healing to take place, the primary adhesion of the flap is essential. Should this intimate contact and gluing be disturbed within the first twenty-four hours, on account of bleeding on inflammatory transudate, death of the flap usually occurs followed by marble-like areas and cicatrization as a final result. Transplanted hair sheds, regenerate only rarely. Like the hair, finger nails with the contiguous skin do not lend themselves to successful transplantation. Even with favorable nutrition of the nail bed, the shape and growth of the nail are abnormal. The advantage in the use of long strips of epidermis over skin flaps lies in the certainty and rapidity with which repair takes place. The advantage of skin flaps over epidermis strips, rests in the greater persistence of the former, since it contracts less and affords a better cosmetic effect. For this reason Lexer prefers to use skin flaps on the face and fingers. The function of the bone graft and its covering lies in the fact that it replaces the missing tissue and enables the body to build up new bone. For this purpose the transplant is endowed with long life and vigorous powers of regeneration, and the implanted graft retains its shape until the edges of the recipient's defective bone regenerate, in spite of the fact that the implanted bone tissue disintegrates and becomes necrotic. A further advantage in

including the periosteum is that it aids in the cementing of the graft to the wound edges and stimulates invasion by bloodvessels, thus establishing early nourishment. Clinical success in the repair of large denuded bony cavities, can be achieved only by the use of living bone covered by periosteum.

A Contribution to the Operative Treatment of Acute Gastric Hemorrhages.—ALBERT (*Deut. Zschr. f. Chir.*, 1914, cxxx, 398) says that 5 per cent. of gastric ulcer patients die of hemorrhage. Gastro-enterostomy or jejunostomy alone, is easily performed but does not positively provide hemostasis. Excision will stop the hemorrhage, but is too severe an operation. Albert recommends gastro-enterostomy for the less severe cases, as those with chronic recurring hemorrhages, but jejunostomy together with ligation of the arteries at the greater and lesser curvatures supplying the ulcerated areas. When the ulcer is in the neighborhood of the pylorus, the arteries can be ligated in their subserous positions along the greater and lesser curvatures and even those to the duodenum to an extent of about two fingerbreadths. If the ulcer is at the greater or lesser curvature, some distance from the pylorus, the ligation is to be done on both sides of the ulcer. The ligation is especially easy at the two curvatures but is seldom possible on the posterior wall because the vessels are very large and the ulcer has almost always encroached upon the pancreas. The investigations of Kirschner and Mangold showed that complete division of the nerves to the pylorus had no troublesome influence on the normal function of the pylorus. There is little need to fear necrosis of the stomach supplied by the arteries ligated. W. Braun excluded four-fifths of the stomach in dogs without damage. In one patient with cancer of the stomach, Braun ligated the vessels in the greater and lesser curvatures from about a hand's breadth from the cardia to the pylorus preparatory to a resection and then found that the resection could not be done. A gastro-enterostomy was substituted and three weeks after operation there were no symptoms of stomach disturbance and the digestion was better than before the operation.

Chronic Ulcers of the Stomach and Duodenum.—MAYO (*Annals of Surgery*, 1914, lx, 220) divides his experience into three periods. The first period between 1893 and 1900, relates to cases in which operation was done only for marked pyloric obstruction. He refers to the second period, between 1900 and 1906, as that of the growth of knowledge the result of surgical observation; and to the third period, between 1906 and 1914, as that of the development and improvement in diagnosis. The great value of the history and physical findings in diagnosis was emphasized. The relation of the clinical symptoms to the lesion was shown in the light of operative experience, and the value of the purely laboratory examinations of gastric contents were found to have been overestimated. The Roentgen ray gradually won first place in the diagnosis of these lesions and the necessity for the excision of gastric ulcers, because of the menace of cancer, was recognized. 1841 cases of acute and chronic ulcers of the stomach and duodenum have been operated on. The percentage in the last 1000 cases acutely observed showed 73.8 per cent. duodenal and 25.2 per cent. gastric ulcers. The